ORGANIZATION AND OPERATION OF A FACILITY FOR SEXUALLY TRANSMITTED DISEASES*

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WHETHER located in a store front, a health-department, or a university hospital, the primary goals of a facility for sexually transmitted disease (STD) are patient care and public education. Their achievement depends upon a complex interaction of numerous variables involving the patient, the provider, and the facility. In discussing these variables, I shall draw upon the report to the World Health Organization (WHO) of the International Traveling Seminar on Venereal Disease (VD) which surveyed facilities in the United States in October 1971[1] and my experience in the establishment of a university-hospital-based clinic in Colorado.[2]

ACCESSIBILITY

Location often is determined by the agency which establishes the clinic rather than by the population to be served. Inappropriate placement adds time and expense barriers and makes the facility less likely to reach the target population. Although in this age of advertising it is assumed that publicity will bring the customer in, this is only partially true. Many campaigns, including the one in Colorado,[3] have illustrated that publicity often attracts a higher proportion of the "worried well" than of those with disease. In fact, Darrow[4] has suggested that the behavior of a significant portion of the target population is characterized by general inattention to or even avoidance of health care. Consequently, our first priority is to identify the population we intend to serve and to tailor *our* behavior

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accordingly. This involves making the clinic both geographically accessible and culturally relevant—breaking down ethnic and social barriers—as well as the selective use of appropriate publicity. One might use a "mountain-to-Mohammed" approach—best illustrated in a recent report of a screening program set up in a bar frequented by homosexuals.[5] This effort was successful only after the development of rapport and trust between the health workers and the population.

Another feature of accessibility is the daily and hourly schedule of the clinic. As noted by the WHO group, some clinics "opened only for a few hours each day and only a few had evening sessions. The vast majority were opened only five days a week and some, even in larger cities, less than that."[1] One clinic with which I am familiar is open four mornings and one evening a week. It accepts patients from 8:00 to 8:45 in the morning. Is this the optimal time to reach the clientele which it intends to serve?

Since the patient is the primary variable, ideally the service should be convenient to him. In the real world, other factors play a major role, namely:

1) The convenience of the scarcest component—the physician
2) The level of funding and the cost of operating the clinic
3) The preference of the clinic personnel not to work evenings and weekends
4) Neighborhood considerations such as transportation and safety

Our clinic is open Monday, Wednesday, and Friday evenings. We see all patients who check in between 6:30 and 9 P.M. The clinic's average closing time is 10 P.M., but it may be as late as 11:30, depending upon the census. The evening hours were not the first choice of the physicians but the professional mainstays of the clinic are the nurses, with a rotating pool of physicians. Most of the nurses have dropped out of nursing to care for their families and consider this a convenient time as well as a good opportunity to get back into clinical nursing.

Once patient contact is established, our goals should be to achieve the maximum benefit from the visit and sufficient satisfaction so that the patient will return to the clinic and tell others about it. The facility, personnel, and procedures of the clinic are the important determinants in this outcome.

Design of the Facility

The facility sets the tone for the encounter; it denotes the value assigned to the patient as a person. Ideally, the facility should be pleasant, with certain amenities such as a comfortable waiting room with educational as well as diverting literature of recent vintage, a clerical intake area, private examination rooms, and adequate storage space for records, medications, and diagnostic materials. Yet the WHO report noted that a number of clinics "were old, unkempt, and unsuitable. While ventilation and lighting standards were usually adequate, rarely was the decor bright and cheerful. It was usually found that there was a lack of space for patients. Males and females queueing in the corridors and a lack of privacy during examinations were noted in some instances."[1]

Our clinic is located in a new hospital facility with traditional waiting room, adequate clerical space, doctor-nurse station, treatment room, and corridors of private examining rooms. There are a number of telephones, with one area where telephone calls can be taken in private. It has a somewhat antiseptic appearance and we rely on staff informality to mute the formality of the surroundings.

Personnel

Sometimes the available medical or nursing personnel who, because of career service, are responsible for covering this function as part of their duties may not have the interest or aptitude for the work. A staff of dedicated, enthusiastic, and well-trained professionals is essential; this can even compensate for an inadequate facility. Basic staffing should include an intake clerk, nurse-practitioner, or paramedical person (medic, physician's assistant), a nurse's aide, a laboratory technician, a physician, and clerk or secretary to follow patients and manage the records. Physicians staffing the clinic can be internists, pediatricians, dermatologists, urologists, gynecologists, or generalists (or a combination of these), but their orientation must cut across all specialties. Physicians, the most expensive and scarcest components of the staff, are most efficiently used in supervising the work of the nurse-practitioner and paramedical personnel and handling difficult cases. Since the knowledge and techniques that need to be mastered are not overly complex, properly trained nursing and paramedical personnel often will perform at the same or a higher level than most physicians.

It is important not only for the director of the clinic to be knowledgeable himself, but also for him to monitor the other personnel and encourage their growth. There is a program at the University of Oklahoma for training physician's assistants and nurses in providing primary care to patients with STD. Further, the VD Branch of the Center for Disease Control is at present offering two courses—one to update and another to provide basic knowledge about STD.

Staffing should be based upon the patient census and on the amount of time necessary to explore each patient's problems and to educate patients. In our clinic we have two clerks checking in patients, three or four nurses, two physicians (one trainee and one attending), one nurse's aide, and one technician. Our clinic sees an average of 38 patients (range: 28 to 64) in a three-hour period. Obviously, staffing can be lighter, but this would bring about a lessening of the time spent with the patients. Many clinics cannot maintain such a staff, which may lead to delays in treatment or the cutting of corners. Site visits by members of the funding agency and continued education of the funding agency—not only by the clinic personnel but by uninvolved groups of consumer advocates—can help to relieve the understaffing caused by inadequate funding.

Clinic Procedures

Patient information and subjective data. Registration procedures vary according to institutional requirements. As with most clinics, ours is free, so we do not need information for billing purposes. We ensure confidentiality and discourage the use of fictitious names so that we can locate the patients when necessary. The handling of minors may be a problem in certain jurisdictions. In Colorado we are able to treat minors for STD and to provide contraceptive information without parental consent. However, we do obtain the patient's consent for care.

The historical data base should be standardized according to the purposes of the clinic and limitations of time or personnel. In our clinic, initially the data base was rather extensive.[2] This long form still is useful in training new personnel. However, for routine use it has been abbreviated (Figures 1 and 2). It includes the reason for attending the clinic, i.e., asymptomatic checkup, presence of symptoms, or whether the patient has been in contact with someone with STD. In such a case the nature of the contact is determined, i.e., the type of STD and the evidence for it in the other person, type of sex engaged in, and the time and duration of the

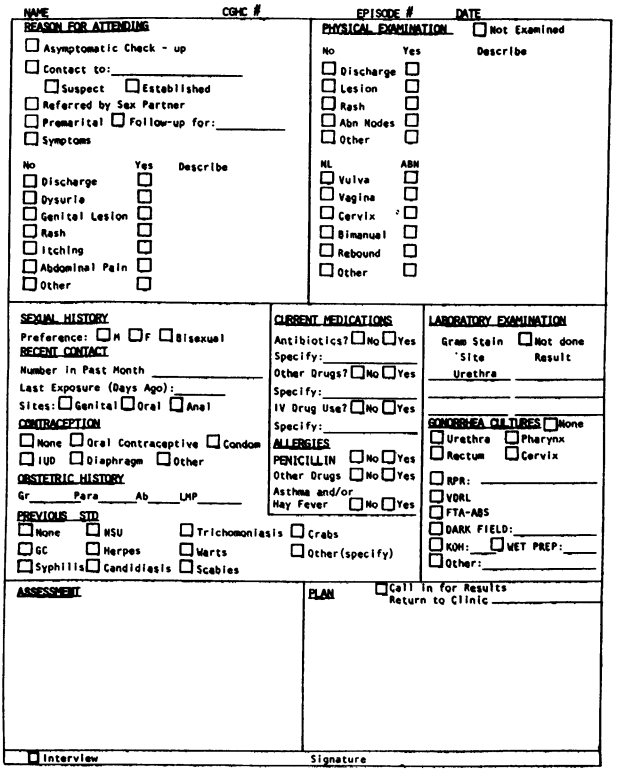


Fig. 1. Initial assessment form

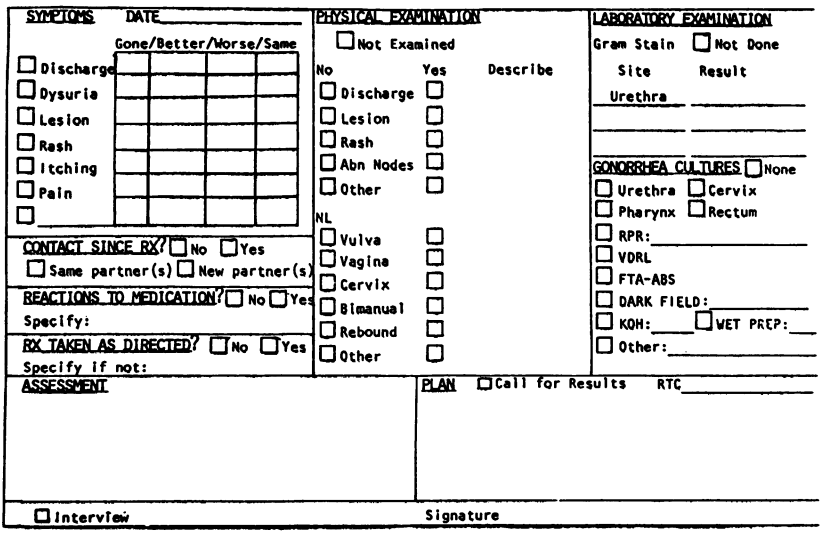


Fig. 2. Revisit form

contact. Often patients fear contact with VD when they merely feel guilty about a liaison or after having received some vague report of the development of suspicious symptoms. The importance of the contact history is that if considered valid for gonorrhea or infectious syphilis, the patient will require epidemiologic treatment at that visit.

We note the presence or absence of important symptoms such as discharge and sores, including description of time of onset, duration, severity, progression, etc. It is important to determine the sexual preference of the patient (opposite sex, same sex, or both), since the majority of patients with syphilis are either homosexual or bisexual. This is a natural prelude to determining the area of sexual contact, i.e., genital, oral, or rectal (or all three), in order to determine where appropriate cultures should be taken and where to look for evidence of a chancre. We inquire about prior serologic results and previous STD since there is a high rate of recidivism. We also ask about diseases that might cause a false-positive serology (e.g., a history of heroin use) and any previous allergic reactions, especially to penicillin. We inquire about antibiotic ingestion which might influence the results of cultures. We ask all patients about contraceptive practices to emphasize their importance in both sexually active men and women.

Objective data: physical examination and laboratory procedures. Venereologists disagree about the necessity of a complete physical examination. Since venereology and syphilology were once allied with dermatology, some clinicians insist that all parts of the skin and accessible mucous membranes be examined in all patients. One can add appropriate genitourinary, gynecologic, and, in some cases, cardiac and neurologic examinations. We perform genitourinary and gynecologic examination routinely and limit the remainder of the examination according to the patient's complaints. We do not perform an extensive examination except where syphilis is likely.

Laboratory data should include a urethral culture, even in asymptomatic males, and, at minimum, a cervical culture in all women or, ideally, a cervical and rectal culture. In our clinic we do two cervical cultures and put one on chocolate agar and one on Thayer-Martin agar because we, like others, have found that 3% to 4% of primary isolates are inhibited by the vancomycin in Thayer-Martin agar.[6] We perform a potassium hydroxide and wet preparation of any significant vaginal discharge. Appropriate cultures in patients who have engaged in oral or rectal sex are performed. A darkfield examination is done on any lesion which might indicate

infectious syphilis. Optimally, a viral culture, if available, should be done to document the presence of herpes. Since this is usually not available, one can do a Wright's or a Giemsa stain of fluid aspirated from a vesicle looking for multinucleated giant cells. A rapid plasma reagin (RPR) test is a useful immediate serology in suspect cases. In addition, a Venereal Disease Research Laboratory (VDRL) slide test should be done on all patients. Other tests should be performed as needed, especially urinalysis and urine culture in women with dysuria.

A clinic can be no better than its laboratory. Quality control of media and equipment maintenance are essential. Technicians should be monitored as to their ability to read Gram stains, isolate the gonococcus, and perform serologic procedures. Darkfield microscopy is a particularly difficult area since the test is valueless if a technician performs it infrequently or the specimen is improperly obtained. Although the VDRL and RPR are relatively easy tests to perform, such tests as the Fluorescent Treponemal Antibody Absorption Test (FTA-ABS), which are more complex, are subject to error when performed in the field.[7]

Assessment (Diagnosis) and Plan

The assessment should be a statement of the problem at the highest level of knowledge.[8] We all have a tendency to make a specific diagnosis on an inadequate data base. This is to be avoided because of the hazards of labelling someone as having gonorrhea or syphilis without clear evidence. This is especially true for syphilis, where diagnosis entails epidemiologic follow-up which has important psychosocial implications.

The plan includes diagnosis, therapy, patient and contact follow-up, and education. Diagnostic and treatment plans for handling specific problems should be outlined clearly by the clinic director.[8,9] Thus, the patient can be guaranteed a standardized approach regardless of the examiner. Much of this can be developed by the use of the diagnostic and therapeutic recommendations which are regularly revised and published by the Center for Disease Control.[10,11]

The clinic personnel must be aware of the hazards of certain agents, e.g., anaphylaxis from penicillin or a reaction to procaine following the use of procaine penicillin; the clinic should be well equipped to handle such emergencies. A properly monitored emergency cart with ventilation equipment, epinephrine, intravenous fluid, etc. should be on the premises. Since these events are rare, the staff must be regularly retrained in the

procedures to follow in the event of such occurrences. If the clinic is far from a hospital emergency room or similar facility, the process of getting the patient to an emergency facility must be outlined clearly.

Follow-up. A telephone-answering service provides a convenient method for the patient to check on test results. Results can be available as early as 48 hours after testing if laboratory backup is optimal. Patients with gonorrhea should return for reculture in one week. Special procedures should be established to expedite follow-up testing. The fact that no blood test is required should be emphasized to the patient.[12] Mechanisms should be established to recall patients with abnormal results who do not return.

Contact tracing. Health departments have trained case-finders who will trace the contacts of patients with infectious or early latent syphilis. For contacts of patients with gonorrhea, the resources are limited and this activity should be performed by clinic personnel. The latter can develop a rapport with the patient so that an accurate contact history can be obtained. Patients then can be encouraged to give their contacts a note stating the hours of local clinics and emphasizing the importance of being tested and treated. Special attention should be paid to patients with recurrent gonorrhea and men who have had contact with women with pelvic inflammatory disease, since they are often asymptomatic.

Patient education. This should include attention not only to STD but also to contraception, human sexuality, and psychiatric problems. This may require some staff training. Informative and interesting written materials are available for use in the waiting room. Some education will occur as the history and physical examination are done and some questions can be answered at the end of the visit. Individual attention should be given to recidivists, those with serious adjustment problems, and patients requiring contraceptive information.

ADMINISTRATION

No matter how large the clinic, it must have a clinic director and a clerk-secretary. The director of the clinic—whether physician, nurse, or administrator—must actively participate in the clinic to gain first-hand knowledge of the problems. I can attest to this from my own experience. As I lessened my participation over a two-year period—from being in the clinic every session to participating in one or two sessions a month—I found it increasingly difficult to maintain surveillance of the clinic and to maintain rapport with the staff. This problem was in large part remedied

TABLE I. STATISTICS FOR COLORADO GENERAL HEALTH CLINIC*

	Total No. visits	*Average No. visits per session*	*Patients with gonorrhea (%)*
January to June 1972	1,282	18	11
January to June 1973	2,073	25	14
January to June 1974	2,154	29	13
January to June 1975	2,334	31	17
July to December 1975	2,666	37	19

*Opened May 3, 1971

TABLE II. TRENDS IN SPECIFIC PARAMETERS AT COLORADO GENERAL HEALTH CLINIC

	January to June 1973	*January to June 1975*
Males expressing heterosexual preference	80%	53%
Males with gonorrhea returning for retesting	51%	63%
Females with gonorrhea returning for retesting	68%	79%
Urethral and cervical smears read as positive where cultures are negative	1.8—3.5%	1.4%

TABLE III. SEXUALLY TRANSMITTED DISEASES

Traditional	*Recently Added*
Gonorrhea	Nonspecific urethritis
Syphilis	Herpes genitalis
Chancroid	Venereal warts
Granuloma inguinale	Scabies
Lymphogranuloma venereum	Crabs
	Moniliasis
	Nonspecific vaginitis
	Molluscum contagiosum
	Cytomegalovirus infection
	Hepatitis (?), etc.

by the hiring and training of an excellent head nurse and a conscientious clerk-secretary. The clerk-secretary performs a variety of functions:

1) Management of records to ensure that they remain confidential, current, and complete.

2) Obtaining patient records, e.g., previous serologic tests, treatment of syphilis, etc.

3) Monitoring of laboratory data and recall of patients who need follow-up

4) Payroll and time-keeping

5) Public relations

6) Maintenance of integration with other facilities in the area, specifically the transfer of information if the patient must be seen in another clinic and the handling of referrals from physicians or other clinics.

Surveillance and Evaluation

The establishment of a clinic is not an end in itself. There must be a standardized orientation for new personnel and continuing auditing of the process and procedures to maintain high-quality care. Basic data about the clinic must be monitored and trends must be noted. In this connection, statistics from our clinic (Table I) show an increasing number of patients and a rise in the percentage of patients with gonorrhea. Both indicate greater success in reaching the target population. Other trends, shown in Table II, include an increasing ability to reach the homosexual population and better efforts to inculcate the need for retesting patients treated for gonorrhea. Correlation of Gram-stain readings of urethral and cervical exudates with culture results is another important measure of clinic performance. These are only some of the indicators which can be used in an ongoing, internal program of surveillance.

Further, there must be a willingness on the part of the staff to change as new information develops or new problems arise. This is best illustrated by the change of name from VD to STD. Nicol recently[13,14] popularized the use of the latter term to emphasize the importance of broadening the scope of clinics from focusing primarily on syphilis and gonorrhea to also being concerned with other diseases (Table III). Although syphilis and gonorrhea are still the most serious, other diseases are more prevalent and, consequently, are of concern to a majority of the patients we serve.

Personnel also must adapt to changing moral attitudes and behavior. No matter what one personally believes, it is essential to maintain a nonjudgmental approach to patients. Our first priority should be to develop a rapport with our patients so that they are comfortable in seeking care and obtaining treatment. They must recognize that we are concerned with them

as persons and are not intent on stigmatizing them as carriers of "social disease."

Finally, the institutionalization of the clinic is both beneficial and detrimental. It is beneficial in that it demonstrates a continuing commitment to the provision of care for STD. However, there is a tendency for things to become routine. Practices may continue long past their need and changes may be deferred or resisted. Consequently, full-scale reevaluation is useful every five to seven years to determine if the clinic is meeting its goals and to set new goals for the future. Although traumatic, it is best to solicit external review for a more objective analysis.

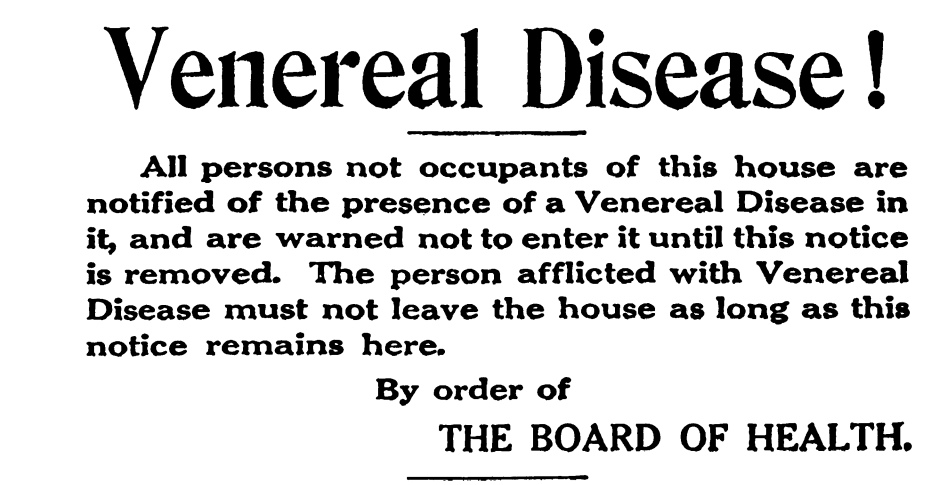
The Private Physician

Since the private practitioner is concerned with a more heterogeneous population having a number of different problems, his skill in the area of STD may diminish. However, diagnostic techniques need not be extensive. We suggest that practitioners take a cervical culture at the time of the annual gynecologic examination on all patients who are sexually active. This culture should be plated on Thayer-Martin agar or, if unavailable, on one of the commercial modifications of Thayer-Martin media.

A VDRL should be performed on all patients at the initial complete examination and repeated routinely in patients who are sexually active with multiple partners (especially homosexuals). The procedures outlined above should be performed when the physician suspects specific STD. If the physician suspects a chancre, he should refer the patient to the health department or a hospital for a darkfield examination and serologic tests. The practitioner should be alert to the importance of contact tracing and should not consider it a breach of confidentiality. The physician should identify a local STD expert who can be consulted on problem cases and who can provide help in contact tracing.

The Future

Enlargement in the scope of STD and the exponential change in information are rendering obsolete the VD clinics of the past, as well as limiting the ability of private practitioners to provide comprehensive services. Despite previous reports,[15] there is evidence that more patients are using clinics than private physicians for care.[16] Should this trend be encouraged by the development of fewer facilities which are attractive to



Venereal Disease!

All persons not occupants of this house are notified of the presence of a Venereal Disease in it, and are warned not to enter it until this notice is removed. The person afflicted with Venereal Disease must not leave the house as long as this notice remains here.

By order of

THE BOARD OF HEALTH.

The Act of Assembly, approved May 14, 1909, provides that the removal, defacement, covering up, or destruction of this placard shall be punished by a FINE of not more than $100 or by IMPRISONMENT, or by both.

Fig. 3. This placard was routine in Philadelphia several decades ago. Reproduced by permission from Nicholas, L., editor: *Sexually Transmitted Diseases*. Springfield, Ill., Thomas, 1973.

patients of all socioeconomic levels? Should these facilities be integrated into a regional network with centers that can provide complex, sophisticated care and educational resources to these smaller facilities? If so, should university centers play a major role in the development of such facilities, as the WHO report suggests?[1] What effects will changes in the patterns of health care and in the consumer's expectations of health-care delivery systems have on the scope of services provided? Since patients who frequent such clinics are otherwise well, should increased attention be paid to the detection of certain high-prevalence risks, such as hypertension, diabetes, cancer of the cervix, sickle-cell disease, and hyperlipidemia and to education covering their particular risk factors (accidents, alcoholism, smoking, obesity, interpersonal problems, child and spouse abuse, etc.)?

What does the future hold for financing such services, whether restricted or broad in scope? Most present STD clinics are descendants of the clinics established when VD meant syphilis or gonorrhea which were serious menaces to the public health (Figure 3). Municipal, state, or federal governments established clinics supported by taxation; our clinic is a recent example. With an increase in third-party payers, this is changing;

some clinics are now charging for care, and state and federal governments are phasing out categorical programs and funding health care directly. Where does the responsibility of the government for maintaining public health and the patient's responsibility for his own care begin? What effect will national health insurance have on the pattern of delivery of health-care services for STD? Will governmental emphasis shift to the provision of resources for education and sophisticated laboratory techniques and to catalyzing the organization of health-care services into a more efficient and coherent network? Will support of what might be called reasonable and customary services continue through third-party payers or national health insurance? I do not pretend to have the answers to the many questions I have raised and hope they will spark a lively discussion.

CONCLUSION

The problem of controlling STD is a complex one; it will require different solutions in different communities. In addition to diagnostic and treatment facilities, solutions will require attention to other factors:[17]

1) Self-activated behavior on the patient's part, i.e., sufficient concern to seek care and to comply with the plan of treatment[18]

2) Behavior and attitudes of the community and their effects on the individual's behavior and attitudes. How high a priority does the community assign to the control of STD? If a high priority is assigned, are there subtle or overt conflicts?

Young has called attention to the fact that societal, like individual, behavior is paradoxical.[19] At the same time that society prevents illness—for example, by organizing water supply, sewage facilities, and immunization programs—it also prevents health by encouraging industries that lead to environmental pollution, armament production, poor nutrition, urban disruption, etc. The same type of conflicts occur in the control of STD. Michael Halberstam,[20] in discussing the implications of China's reported eradication of VD, states that this—

> ...came about through a number of social measures, including re-education of prostitutes, closing down of houses of prostitution and decrease in extramarital and premarital sex. In part, this was done because privacy is a fairly different concept in China. Now most of us have not had to formulate the proposition quite so starkly, but given the choice of having to live in a nation without privacy or a nation with VD, I would choose the latter. There are

social costs that one is not prepared to pay and I think probably many people would agree. One might even theorize that a high rate of VD shows a certain healthy trend in society as in Boswell's London, where different ages, classes and roles mingled for the first time.

His comments bring to mind that many famous and creative people have had VD.[21] Halberstam is not advocating VD but is making an important point: We must "always be suspicious of societies that tell you they have eliminated VD"; they may not be societies in which we would want to live!

On the other hand, we must exhaust all avenues within our present societal framework to achieve better control of STD. I have spent some time talking about one of these avenues: the organization of diagnostic and treatment facilities. Although important, we must acknowledge that no matter how well we tailor our services to our particular community, they remain only one part of the control effort.

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